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ABSTRACT

Published to elicit comments and discussion from the library and information service communities, this working paper on governance of a nationwide library and information service network proposes and discusses three scenarios for the construction of such a network. The first explores a legislative model resulting from prescriptive legislative action. The second views network development and governance as an evolutionary process where ad hoc, legal, and other types of agreements or their combination provide the necessary definitions. The remaining scenario looks solely at the network coming from the private sector in which profit and not-for-profit entities would work within the context of the market place to create the network. Common to the discussion of all three models are the questions: What is to be governed? Is a legislated governance structure necessary, and what form might that or another type of governance take? No conclusions or recommendations are offered; rather, professionals are encouraged to consider the role each scenario should play in the development of a nationwide governance structure, and which scenario or scenarios should receive the highest priority for further study. (RAA)

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W O R K I N G D O C U M E N T

A NATIONWIDE NETWORK: DEVELOPMENT, GOVERNANCE, SUPPORT

Discussion Paper Resulting from a Meeting Held by the
Library of Congress Network Advisory Committee
October 1-2, 1980

Library of Congress, Washington, D.C.

January 1981

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FOREWORD

The following paper contains the results of the Network Advisory Committee's program session on governance for a nationwide network, which was held in Washington, D.C., on October 1-2, 1980. It is being issued as a working document to elicit comments and discussion from the library and information service communities. Public hearings to be held in conjunction with the midwinter and annual conferences of the American Library Association (February 1981, Washington, D.C., and June 1981, San Francisco) will be organized by the Network Advisory Committee to discuss some of the issues related to governance that it had identified and to give the profession an opportunity to provide their input.

In reviewing this document, the following points should be considered:

- What role do you feel each scenario should play in the development of a governance structure for a nationwide network?
- Which scenario or scenarios should receive the highest priority in terms of further study by the Network Advisory Committee and other groups?

It should be noted that this paper does not contain a conclusion or recommended steps for action. The Network Advisory Committee felt that the library and information service communities should be informed of what has taken place during these discussions and be given an opportunity to comment on these deliberations. In addition, the advisory committee prepared for this program by reviewing several reports and articles written on the topic of governance and was cognizant of the work that had already taken place over the last few years. The following paper represents only the last part of the total discussion and does not reflect the background papers and other issues discussed earlier in the program.

Kaye Gapen, Iowa State University (representing OCLC, Inc.) compiled this paper from reports provided by the recorders of the discussion groups, Carol Henderson, American Library Association, and Susan Martin, Johns Hopkins University (representing the Association of Research Libraries). Minor editorial changes have been made by the Library of Congress Network Development Office.

This program session on governance was organized by a subcommittee of the Network Advisory Committee headed by John Linford, New England Library Information Network. Other members of the planning subcommittee included Irving Klempner, SUNY, Albany (representing the Special Libraries Association); Grace McCarn, National Library of Medicine; Ward Shaw, Colorado Alliance of Research Libraries (representing the American Society for Information Science); and Alphonse Trezza, Intergovernmental Library Cooperation Project, Federal Library Committee.

The support of the Council on Library Resources, which provided funding for many of the expenses for this meeting, is gratefully acknowledged.

Henriette D. Avram
Director, Processing Systems, Networks
and Automation Planning
Library of Congress
January 1981

1. INTRODUCTION

On October 1-2, 1980, the Network Advisory Committee met to discuss the governance of a nationwide library and information service network. Before any recommended governance structure could be discussed, though, the members of the committee attempted to arrive at a clearer definition and conception as to how such a network might be formed. Three discussion groups were formed which attempted to deal with the following questions: (1) What is to be governed, (2) is a legislated governance structure necessary, and (3) what might that or another form of governance look like?

As models, the advisory committee sought to develop three scenarios for the construction of a nationwide network. The first scenario explored a legislative model in which the network would result from prescriptive legislative action. The second scenario viewed the development of the network and its governance as an evolutionary process in which specific ad hoc legal and/or other types of agreements would provide the necessary definitions. The third scenario looked solely at the network coming from activity in the private sector in which for-profit and not-for-profit entities would create a nationwide network within the context of the restrictions and opportunities of the market place. The three scenarios have been recorded in Appendix A, B and C in the form that they were presented at the meeting but have been combined in the following sections of this paper to tie together the pertinent elements resulting from these discussions.

2. THE EVOLVING NATIONWIDE NETWORK

2.1 Development

The corporate entities involved in the development of a nationwide network include at least the following: for-profit and not-for-profit entities, libraries with systems, regional groups, special interest groups, utilities, state libraries or programs, federal libraries or programs, and the Library of Congress. Each of these operates in a different environment, and even within each grouping, there exist disparate goals, needs, and development potential. The nationwide network will most realistically begin to emerge as a result of specific linkages between and among these agencies. These linkages (and the governance structure which would be a concommitant part of them) will be hammered out in a continuing series of negotiations, contractual arrangements, informal or legally formal agreements, and so forth. Thus, the resulting network becomes a "logical" as well as "physical" entity.

The probable steps in the evolution would begin with the linkages of the large utilities like OCLC, Inc., the University of Toronto Library Automation System, the Research Libraries Group, or the Washington Library Network. The next level down would include negotiated relationships such as the one between OCLC and the Southeastern Library Network. Regional, state, and federal groups might continue to serve as brokers while possibly developing their own subsystems or acquiring systems which can be incorporated into the nationwide network. Special interest groups would follow the same pattern, participating through similar negotiated relationships.

The evolutionary process has been, and will continue for some time, to be both healthy and productive. Because of the many environments in which system development has occurred to date and the compelling nature of large uncontrollable forces, redundancy of investment and effort has been necessary to ensure that the limitation of any particular environment might be overcome by the strength of another. This same statement applies to the redundancy of networking activities which we observe and in which we possibly participate. Indeed, this is also true of the governance and consumer relationshps which are part and parcel of the library world today. In the future, however, such redundancy will be circumscribed by the conditions of the market place and the economic imperatives of cooperation.

In addition, we must realistically view and accept continuing entreprenurial activity in both the private and the for-profit sectors since it is one facet of today's information revolution which is extending beyond the traditional limits of classical librarianship.

2.2 Governance

As the nationwide network evolves, so too will its governance structure which will result from contracts or agreements signed by

any of the disparate agencies. These agreements would probably include clauses to handle the following: technical work, planning, development expense, outside funding, return on investment, standards and the standard-setting process, communication channels, objective-setting, policy-making, decision-making, and so forth. Furthermore, any combination of corporate entities will probably result in some form of new combined users groups or relationships. The responsibility for these arrangements lies with the management and governing boards of the participating corporate entities.

2.3 Support

The dynamic linking process, however, does not occur in a vacuum. Planning, apart from that hammered out in the linkage agreements, is necessary at the national level in relation to such elements as the following: standards, legislation, communications lines, tariffs, the development of specific descriptive plans for operational consequences (e.g., use of Battelle's model of forecasting possible impacts of a variety of forces), review of changing developments, review of funding requests, grants, and programs (particularly with relation to real money), and overall modeling. This national level planning can be undertaken by a variety of existing groups including the Network Advisory Committee, the Bibliographic Service Development Program (which is operated by the Council on Library Resources), the American National Standards Institute, etc. Discussions in these groups would serve as an impetus towards compromise if not consensus, provide supporting standards, and coordinate and consult on and for local development and linkage arrangements.

Other forces will also serve as change agents or checks and balances: individual libraries and consortia concerns, special interest groups and their negotiations, for-profit organizations and their marketing plans, a national agenda, or funding agencies.

2.4 Emergence of the Nationwide Network

If we consider the nationwide network to be an evolving one, we may well ask when it might be recognized as having emerged. Before answering that question, we might first agree upon what is specifically necessary for the network. First, a communications system must be in place. Second, there must be something to communicate, such as bibliographic information, holdings information, or message transfer (i.e., messages upon which action must be taken). Third, data and/or documents information trarsfer might occur. The first development needed, therefore, is an overall communications system.

Possible groups whose hardware might be the basis of a nationwide communications system include the Research Libraries Group, the University of Toronto Library Automation System, OCLC, or the Washington Library Network. These are the present stakeholding groups which have invested time and money in system development. Linkage and governance would develop through group by group contractual or mutual agreement arrangements,

with the first group possibly setting the precedent for subsequent groups and with the growth of governance arrangements occurring as more groups participate. No doubt, iterations of contractual arrangements and protocols will occur during which the governance structure will grow and develop.

With each iteration and contract negotiation, however, the form of the network will become firmer with fewer elements left open to change. The network will have emerged when key members or bodies of the groups just described have implemented the necessary contractual arrangements.

The implications for local libraries and programs of an evolving network development process include the following: maintenance of local autonomy, maintenance of local decision-making, an opportunity for keeping doors open for creativity, adaptability and flexibility to meet local needs, and maintenance of levels of physical responsibility. The governance structure of the network, thus, is tied to a local library from the bottom up rather than from the top down in that local libraries can participate in the governance of their regional or special interest network, which in turn will participate in the development and governance of a larger network and ultimately the nationwide network.

3. THE PRIVATE SECTOR

While corporate entities from the private sector would be part of the same negotiations and linkage discussions just described, a few points from that scenario must be kept in mind. Because the private sector implies competition, it is clear that the systems developed there will tend to be proprietary rather than in the public domain and, therefore, systems will not link without pressure from users. Simultaneously, as the market place establishes itself, users will be increasingly in control of the development of the systems. Desired linkages will be established as users perceive the need for linking or as the management of the corporate entity perceives a market which can be exploited through linkages.

Certain effects can be hypothesized for a private sector system. With market competition there will be a trend towards cost minimization for like services. As customers use various systems, integration will become more prevalent when users demand the interfaces between and among competing systems. Systems will be accessible and easy to use for both the information professional and user. Finally, communications systems will be structured in such a way that multiple private sector institutions will find it possible to reach a standard satisfactory to their customers. With regard to governance elements, the concept of users groups or of consumer organizations which will act as linkage mechanisms for the private sector seems probable. Although informal, these groups would carry the power of the market place to the governance structure.

4. LEGISLATION

What will be the role of the legislative process and federal support in relation to this evolutionary network? While a general mistrust of government and the overhead and regulatory restrictions that might accrue from federal agency supervision of the network exists, how might these factors be woven into the network evolution if it became obvious that legislation was necessary or that federal appropriations might be available?

Rather than creating a new central federal agency or enlarging the mission of an existing federal agency or library, a public corporation might be the most desirable model upon which to build a federal legislative element. The public corporation is designed to combine the flexibility of private corporation enterprise with the ability to use the resources of the government. A public corporation must be authorized by Congress; it can receive federal appropriations but can also be insulated from direct federal control.

A recent example is the Corporation for Public Broadcasting (CPB) authorized by the Public Broadcasting Act of 1967. Its board of directors is appointed by the President, and Congress provides its funding two years in advance of expenditure. Its function is to facilitate the development of public telecommunications entities, interconnection systems, and high quality programming. Federal interference or control over CPB or the public telecommunications system is specifically prohibited, and CPB is prohibited from owning or operating any part of the system.

Based loosely on the CPB model, a public corporation would facilitate a nationwide network by planning, organizing, financing, evaluating, but not by operating any part of the network. It would not compete with existing federal categorical programs nor with federal library and information services nor with the national policy and planning function of the National Commission on Libraries and Information Science.

Thus, what follows is based on the assumption that a legislative proposal, if recommended and passed, would result in the establishment of a public corporation to facilitate the development of a nationwide library and information service network.

4.1 Elements of Governance

A nonprofit corporation which would not be an agency or establishment of the United States government would be established by Congress. A ten to fifteen member board of directors would be appointed by the President, by and with the advice and consent of the Senate. Ten of those members might be specified to be representative of the following communities: the library community, the information science community, the private sector, the public or end users of library and information services, and the federal sector. The President

should give consideration to recommendations from the library and information science communities.

4.2 Functions

Powers authorized for the corporation should include the following: to make grants and award contracts, to support special collections of national significance, to support national services, to support the development of and work toward the implementation of standards, to support research and development, to assist in establishing telecommunications and interconnections between systems for interstate use, to support education and training activities, to evaluate user satisfaction, and to coordinate with other national library and information service programs and related programs.

4.3 Funding Sources

The enabling legislation for the corporation would specify authorization for federal appropriations and authorization to seek and obtain funds from public and private sectors.

APPENDIX A

A NATIONWIDE NETWORK: THE LEGISLATIVE SCENARIO

Prepared by Carol Henderson

This group was instructed to discuss the issue of governance under one possible scenario for development of a nationwide bibliographic network -- that federal legislation would be necessary to facilitate a nationwide network. Based on this assumption, the group attempted to answer three questions: (1) What would be the elements of governance, (2) what functions would be performed, and (3) what would be the funding sources?

Rather than creating a new central federal agency or enlarging the mission of an existing federal agency or library, the public corporation was chosen as the most desirable model under a federal legislative scenario. The public corporation is designed to combine the flexibility of private corporation enterprise with the ability to use the resources of the government. A public corporation must be authorized by Congress, receives federal appropriations, but is insulated from direct federal control.

A recent example is the Corporation for Public Broadcasting (CPB) authorized by the Public Broadcasting Act of 1967. Its Board of Directors is appointed by the President, and Congress provides its funding --in recent years, two years in advance of expenditure. Its function is to facilitate the development of public telecommunications entities, interconnection systems, and high quality programming. Federal interference or control over CPB or the public telecommunications system is specifically prohibited, and CPB is prohibited from owning or operating any part of the system.

Based loosely on the CPB model, a public corporation would facilitate a nationwide network by planning, organizing, financing and evaluating, but not by operating any part of it. It would not compete with existing federal categorical programs, or with federal library and information services, or with the national policy and planning function of the National Commission on Libraries and Information Science.

Thus, what follows is based on the assumption that a legislative proposal, if recommended and passed, would result in the establishment of a public corporation to facilitate the development of a nationwide library and information service network. The corporation's first activities would probably focus on the bibliographic component of such a network. It should be noted that the discussion group painted only the broad outlines; should this scenario be recommended, additional details would need to be filled in.

Elements of Governance. A nonprofit corporation which would not be an agency or establishment of the U.S. Government would be established by Congress. A ten to fifteen member Board of Directors

would be appointed by the President by and with the advice and consent of the Senate. Ten of those members might be specified as representative of the following communities:

The library community (at least three individuals), broadly representative of bibliographic utilities, networks, and libraries

The information science community

The private sector (at least two individuals), representing both the profit, and the not-for-profit segments

The public, or end users of library and information services (at least three individuals)

The federal sector

The President should give consideration to recommendations from the library and information science communities.

Functions. Powers authorized for the corporation would include the following:

To make grants and award contracts

To support special collections of national significance

To support national services

To support the development of and work toward the implementation of standards

To support research and development

To assist in establishing telecommunications and interconnections between systems for interstate use

To support education and training activities

To evaluate user satisfaction

To coordinate with other national library and information service programs and related programs

Funding sources. The enabling legislation for the corporation would specify:

Authorization for federal appropriations

Authorization to seek and obtain funds from public and private sources

APPENDIX B

A NATIONWIDE NETWORK: THE EVOLUTIONARY SCENARIO

Prepared by Kaye Gapen

(1) The corporate bodies involved can include: companies, libraries with systems, regional groups, special interest groups, utilities, the Library of Congress, federal libraries or programs, state libraries or programs. It must be recognized that each of these are disparate elements and within each major grouping are further disparate subgroupings.

(2) The governance structure of an emerging nationwide network would result from specific linkages defined by contract or agreement between any of the disparate corporate bodies. Governance elements would include: technical work, joint planning, joint funding, outside funding, standards and standard setting process, objectives, and the means for communication. The results of any combination of corporate bodies might be a combined new users group. All of the governance issues would influence and be influenced by national ideals and thoughts concerning a nationwide network.

(3) The probable steps in the evolution of the network and its governance structure begin with:

(a) Utilities link.

(b) The Library of Congress enters in some way.

(c) The regional groups continue to serve as brokers while possibly developing their own subsystems.

(d) The special interest groups would participate through negotiated relationships resulting in cross-fertilization.

(4) Redundancy of development is necessary and desirable, due in part to local consideration and the compelling nature of uncontrollable forces. In addition, the entreprenurial competitive forces are necessary and desirable for the same reasons.

(5) Planning at the national level is necessary, however, in relation to elements such as the following: standards; legislation; communication lines; tariffs; specific descriptive plans for operational consequences, for example use of Battelle's model for forecasting possible impacts of a variety of forces; review of changing developments; review of funding requests, grants and programs, particularly with relation to real money (for example, the Council on Library Resources and the National Science Foundation), and the enumeration of local level decisions. Such national level planning can be undertaken by a variety of groups including: Network Advisory Committee, Bibliographic Service Development Program, American National Standards Institute

and so forth. The purpose is to coordinate and consult on and for local development and linkage arrangements.

(6) The question was asked, "When does the governance structure begin to emerge for the network?" Before answering that question we discussed what elements were necessary for a network and decided the following:

(a) Communication system was necessary.

(b) There has to be something to communicate such as bibliographic information, holdings information, message transfer (things upon which to take action).

(c) Data and/or documents information transfer.

The development needed, therefore, begins with the communications system.

Possible groups which might come together to produce such a nationwide communications system include the Research Libraries Group, University of Toronto Library Automation Systems, OCLC, Inc., Library of Congress, etc. These are the stakeholding groups who have invested time and money and might be considered the "haves." Governance would develop through group-by-group contractual or mutual agreement arrangements with the first group possibly setting the precedent for subsequent groups and with the growth of governance arrangements occurring as more groups enter in. No doubt a reiteration of contractual arrangements and protocols will occur during which the governance structure would grow and develop. With each iteration and contract negotiation, however, the form for the network would become firmer with fewer elements left open to change. We could say that the governance structure for the network had emerged when key numbers or bodies of the group just described have forged the necessary contractual arrangements. It will probably be generally obvious to all.

(7) The development just described would not exist in a vacuum but would be affected by other forces such as individual libraries and consortia concerns, special interest groups and their negotiations, a national agenda, for-profit organizations, funding agencies, the "library public conscience" such as the Network Advisory Committee, and regional agencies. These other forces will all serve as checks and balances and as change agents.

(8) The implications for local libraries and programs include the following: maintenance of local autonomy, maintenance of local decision making, continuing to open the doors for creativity, local need adaptability maintained, fiscal responsibility.

The governance structure of the nationwide network is tied then to the local library from the bottom up rather than from the top down. Indeed, this relates to "every kettle on its own bottom".

APPENDIX C

A NATIONWIDE NETWORK: THE PRIVATE SECTOR SCENARIO

Prepared by Susan Martin

In this scenario, it is assumed that the private sector is defined as a mix of profit and not-for-profit institutions offering services to bibliographic utilities, networks, and libraries. Under this definition, OCLC itself is a private sector enterprise. On the other hand, in the future a for-profit company could buy OCLC and continue to provide the same services. Examples of other private sector institutions are American Telephone and Telegraph, Bibliographic Retrieval Services, System Development Corporation, and the Research Libraries Group.

Implicit in this discussion of the private sector is the concept of non-linking of systems. Because the private sector implies competition, it is clear that systems will tend to be proprietary rather than in the public domain; therefore, systems will not link without pressure by users. Simultaneously, as the market place establishes itself, users will be increasingly in control of the development of the systems. Desired linkages will be established as users perceive the need for linking. Thus, the private sector system will tend to be evolutionary in nature.

Certain effects can be hypothesized for a private sector system. With the market competition, there will be a trend towards cost minimization for like services. As customers use various systems, integrated systems will become more prevalent when users demand the interfaces between and among competing systems. Systems will be accessible and easy to use for both the information professional and user. Finally, communications systems will be structured in such a way that multiple private sector institutions will find it possible to reach a standard satisfactory to their customers.

Various alternatives are foreseen for a private sector nationwide network. We anticipate that the most likely structure is no structure at all, following the current state of the profession. However, alternatives exist. It would be possible to establish a regulatory agency such as those controlling banks and airlines to control the information network. While this possibility exists, we are not in favor of this as a technique. We prefer the concept of user groups or consumer organizations to act as leverage mechanisms for the private sector. Although informal, these groups would carry the power of the market place to the governance structure. In addition, one might conceive of bilateral or multilateral contractual arrangements in an evolutionary process towards a nationwide network and the use of standards created through the American National Standards Institute to allow users of the network to establish their own links as desired.

Under the proposed system, funding will not be significantly different from the present situation. Libraries and library cooperatives

will pay for services, with supplementary grants from federal, state, or local institutions as appropriate. However, the percentage of funding obtained through grants will tend to be minor, as is the case at present. The bulk of responsibility for designing, contracting for, and paying for service will rest with the individual institution or consortium.